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Notice of Allowability	Application No.	Applicant(s)	
	09/608,202	MAHESH ET.AL.	
	Examiner	Art Unit	
	Tri H. Phan	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the amendment filed on August 19, 2004 and January 3, 2005.
2. ☒ The allowed claim(s) is/are 1-74.
3. ☒ The drawings filed on 30 June 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

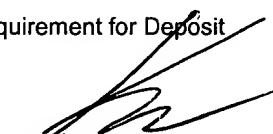
* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|--|--|
| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|


KENNETH VANDERPUVE
 PRIMARY EXAMINER

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on August 19th, 2004. Claims 1-74 are now allowing in the application.

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Attorney **Desmund Gean** (Reg# 52,937) on January 3rd, 2004.

The application has been amended as follows:

IN THE CLAIM:

The following changes to the claims 56, 59 and 62 has been approved by the examiner and agreed upon by applicant:

In claim 56, line 11, delete the apostrophe (') in front of the word -- to --.

In claim 59, line 11, delete the apostrophe (') in front of the word -- to --.

In claim 62, line 11, delete the apostrophe (') in front of the word -- to --.

Allowable Subject Matter

3. Claims 1-74 are allowed. The following is an examiner's statement of reasons for allowance:

Claims 1-74 are considered allowable since when reading the claims in light of the specification, none of the references of record-alone or in combination disclose or suggest the combination of limitations specified in the independent claims including.

Substantially regarding claims 1, 35, 68 and 74, the prior art of record fails to disclose the computer program product, system and method for facilitating communications between the network node and the Head End of the access network including a plurality of nodes which communicate with the Head End via upstream channel and downstream channel, which comprise configuring the Head End to utilize the first modulation profile for receiving communication signals from the network node via the first channel, detecting the change in the channel condition on the first channel and dynamically configuring the Head End to use the second modulation profile for receiving communication signals on the first channel, wherein the dynamically configuring is performed in response to the channel condition change being detected on the first channel, wherein especially the channel condition change includes a Forward Error Correction (FEC) factor value change.

Substantially regarding claims 23 and 56, the prior art of record further fails to disclose the system and method for facilitating communications between the network node and the Head End of the access network as the same manner set forth in claim 1; especially, wherein the dynamic modulation profile change occurs in response to the UN-FEC factor value increasing above the predetermined value of j percent, where the UN-FEC factor value corresponds to the ratio of the number of corrupted packets received via the first channel which can not be corrected using Forward Error Correction to the total number of packets received via the first channel during the predetermined time interval.

Substantially regarding claims 26, 59 and 71, the prior art of record further fails to disclose the computer program product, system and method for facilitating communications between the network node and the Head End of the access network as the same manner set forth in claim 1; especially, wherein the dynamic modulation profile change occurs in response to the UN-FEC factor value decreases below the predetermined value of j percent, where the UN-FEC factor value corresponds to the ratio of the number of corrupted packets received via the first channel which can not be corrected using Forward Error Correction to the total number of packets received via the first channel during a predetermined time interval.

Substantially regarding claims 29, 62 and 72, the prior art of record further fails to disclose the system and method for facilitating communications between the network node and the Head End of the access network as the same manner set forth in claim 1; especially, wherein

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the dynamic modulation profile change occurs in response to the signal-to-noise (SNR) ratio value on the first channel being above a predetermined value of n dB, the FEC value being below the predetermined value of k percent and UN-FEC factor value factor value being below the predetermined value of j percent.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jäverbring et al. (U.S.6,604,216), **Proctor, Jr.** (U.S.6,785,323) and **Eriksson et al.** ("Comparison of Link Quality Control Strategies for Packet Data Services in EDGE", 2-1999, Ericsson Radio System AB, S-16480, Stockholm Sweden, pages 938-942) are all cited to show devices and methods for improving link control for supporting multiple modulation schemes in the communication architectures, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 872-9314

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tri H. Phan
January 3, 2005



KENNETH VANDERPUYE
PRIMARY EXAMINER